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APPLICANT: HITACHILTD;

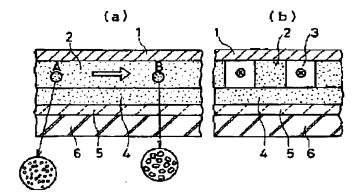
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TITLE

FUEL CELL



ABSTRACT: PURPOSE: To lengthen the life in its operating hour by designing the diameter of at least one orifice, in a rim part of a fuel pole or an oxidizer pole among a rib part, an electrode, and an electrolyte layer, to be smaller in its upstream than that in its downstream in the gas flow direction.

> CONSTITUTION: In a fuel cell comprising separators 1, gas grooves 3, a rib part 2, an electrode 4 forming a passage for supplying a fuel or an oxidizer from the gas grrove 3 to a catalyst layer 5, and an electrolyte layer 6 for selectively passing hydrogen ions generated in a fuel pole to an oxidizer pole: the average orifice diameter, formed in a rib part 2, an electrode 4, and an electrolyte layer 6, has smaller one in its upstream A than that in its downstream B in the gas flow direction. Whereby, phospheric acid scavenged at more down stream sides in respective gas stream can more easily be returned to its more upstream sides, so that the resulting activation of uniformity of the phosphoric acid distribution in a cell can lengthen its operating life.

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